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ABSTRACT

The preliminary results of four of six research methodologies used to evaluate a professional development curriculum in an urban school are described and reported. The paper begins with a discussion of the social systems model underlying the project, a brief summary of the transactional evaluation scheme used to direct research efforts, a description of the inservice teacher education component of the program, and then an explanation and preliminary report of the findings of each of the four methodologies. Each methodology is analyzed in terms of the data it yields, its generation of research questions, and its contribution to general and specific bodies of knowledge. The four methodologies covered in order are: (1) Quantitative and Psychometric Analysis, (2) Ethnographic Analysis, (3) Historical, and (4) Managerial Analysis. The two methodologies not reported here, but used in the project, are the Comparative Case Study approach and the Classroom Learning Environments Studies. The paper concludes with a discussion of the cost benefits of the four methodologies under consideration. Finally, the implications for assessing complex programs in other areas are presented. (Author/RC)

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# The Use of Multiple Research Methodologies To Evaluate an Inservice Curriculum

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I. Overview and Purposes of Paper

The paper describes and reports the preliminary results of four of six research methodologies used to evaluate a professional development curriculum in an urban school. The paper begins with a discussion of the social systems model underlying the project, a brief summary of the transactional evaluation scheme used to direct research efforts, a description of the inservice teacher education component of the program, and then an explanation and preliminary report of the findings of each of the four methodologies. Each methodology is analyzed in terms of the data it yields, its generation of research questions, and its contribution to general and specific bodies of knowledge. The four methodologies covered in order are: (1) Quantitative and Psychometric Analysis, (2) Ethnographic Analysis, (3) Historical, and (4) Managerial Analysis. The two methodologies not reported on here, but used in the project, are the Comparative Case Study approach and the Classroom Learning Environment Studies. Both of these are planned for the second and summative year of the project.

More specifically, the paper will:

1. Describe in summary fasion the conceptual base, the goals of the project and the nature of the multi-faceted curriculum.

2. Discuss the transactional operating style of the program and document the necessity for using a transactional evaluation approach[1] in this urban professional development program.

3. Outline the specific application of the four methodologies to various aspects of the program and provide a rationale for using each.

4. Report the results of each evaluation method briefly and indicate which may be expanded, maintained and modified.

5. Analyze the problems involved in synthesizing the data derived from a variety of techniques and analytical frameworks.

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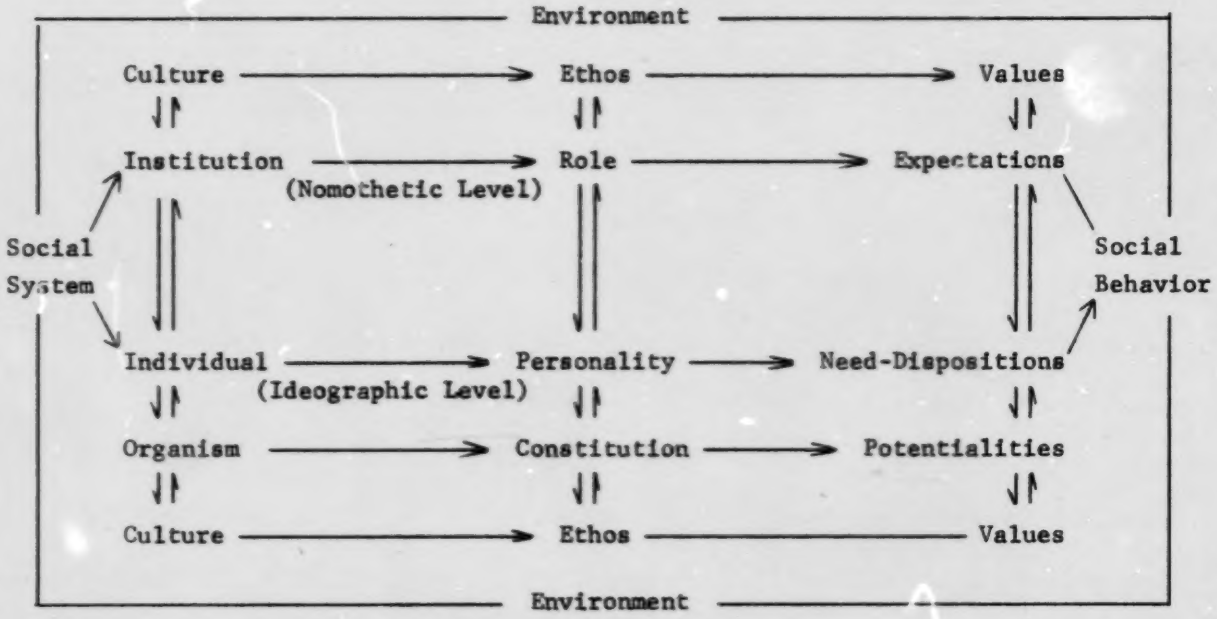
[1] R. E. Stake, Evaluating the Arts in Education: A Responsive Approach (Columbus, Ohio: Charles Merrill, 1975).

The paper concludes with a discussion of the cost benefits of the four methodologies under consideration. Finally, the implications for assessing complex programs in other areas are presented.

A. The Complex Nature of the Program

The general model of behavior underlying this Cycle 11 Teacher Corps program is the open socio-cultural system framework of Getzels and Guba shown below.[1]




Three basic assumptions are made by the framework. First, each school is a unique social system characterized by institutional role sets and filled by personalities with individual needs. New persons coming into a system must learn the institutional expectations to function in their roles, and in some ways institutions must have the flexibility to accommodate individual needs.

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[1] J. Getzels, R. Campbell and R. Lipham, Educational Administration As a Social Process: Theory, Research, Practice, (New York: Harper & Row, 1968) p. 105.

Put another way, an effective and efficient organization management minimizes the conflict between institutional expectations and individual needs by adopting a transactional style of organizational management. The programmatic implications of this assumption are: to train together the persons who are and will be filling the roles in a specific school community; to transmit and negotiate similar institutional expectations with them before changing components of the system, e.g., the introduction of a major curricular project, and to continue the reinforcement of goals and the satisfaction of individual needs through the professional training program.

The second assumption of the model relates to the specification of role expectations when more than one agency is involved in the system. An effective program must be a collaborative one involving the major institutions in the school/community. The program should develop a participatory decision-making model incorporating input from the university, the public schools, the parents, the local community, the students and the teachers and their representative organizations. Third, at the individual level of the model, the greater the communication and interaction among the actors within the system the greater the effectiveness and efficiency of the system. The implication of this assumption is that the program should institute procedures to increase contact and enhance the relationships of the individuals filling the roles in the school/community. The R. U. Teacher Corps program based on these assumptions began operation in June, 1976 and will terminate in June of 1978.

The Hinton Elementary School Teacher Learning Center and Cadre, funded by USOE Teacher Corps, is a collaborative effort by Roosevelt University, the Chicago Public Schools and the Hinton Elementary School Community to develop better procedures for retraining experienced staff members, identifying and

solving problems in the school, implementing innovative projects and providing initial training for the Teacher Corps pre-service interns. The program is a complex one with many components, but the basic training mechanism of the program is called a cadre, a group composed of teachers, administrators, community persons, role specialists and interns with Teacher Corps staff members guiding the direction of the group. The cadre meets weekly after school to work on the group specified goals and projects designed to improve instruction and, ultimately, student performance at the school. Additionally, daily inservice activities are offered by the Teacher Corps program in various formats: formal large group instructional sessions presenting information, new techniques and teaching strategies concerning metric education and diagnostic prescriptive teaching, small group meetings with staff, individual classroom consultation and availability of materials and resources in the Teacher Learning Center. A more complete description of the curriculum is presented below.

B. The Inservice Curriculum

The inservice program draws its direction from three separate, but overlapping, models. It draws, first, from the social systems model described above, in that the identification of expectations of one's own and others' role groups is assumed to underly all "nuts and bolts" kinds of teaching, curricular, and organizational improvement tasks, and dealing with this role development must be attended to directly in the program. Second, a model for inservice teacher education by Joyce, Howey and Yarger[1], which prescribes teacher involvement in a governance process to make decisions about the substance, the delivery process, and the mode of inservice programs, gave rise to structures and program outcomes

[1]B. Joyce, K. Howey, and S. Yarger, Issues to Face, ISTE Report I, Palo Alto, California, June 1976.

of the inservice curriculum. And third, we have used those ubiquitous aspects of the Tyler model, in that we have specified objectives to be accomplished through an inservice program, and are evaluating their attainment. Of course, given the faculty involvement in the decision-making process on an ongoing basis, some initial objectives are dropped and others not originally intended are added. Thus the process of evaluating original objectives' attainment becomes clouded.

Implementation of various aspects of the program is time-bound. The first major activity was a three-week, three hour per day, summer program preceeding the first school year of the project's implementation. Over half of the faculty, plus other role members, participated in the summer program. Each week's sessions focused on a different theme. The first was titled, "Cross Role Training," and involved meetings in role groups (primary and intermediate teachers, community representatives, parents, preservice interns, administrators, and university personnel) to clarify the functions of one's own role group and expectations for each other's role group. These perceived functions and expectations were shared among groups, and clarification discussions ensued for the purpose of attaining mutual understandings as a foundation for all future inservice work.

The second week had the thrust of Problem Solving and Group Dynamics. At the outset the Dewey model of problem-solving and its application to local school and community issues was presented. This was followed by an administration of two instruments designed to have individuals assess their leadership and personal interaction styles and to examine their values regarding the teaching of Black students. The aim was to make explicit the set of personal styles and values as they affected each individual's functioning in problem-solving

tasks in the school and community. Through a consensus building activity, participants were to arrive at a common view of problem areas. At the end of the week the group evolved a set of problems and related tasks they wished to pursue for the coming school year, and each individual made a committment to working on one task group from within the range identified.

Week three focused on the introduction of curricular areas on which the group had earlier indicated they wished to have inservice sessions. The four top-priority areas were taken up, one each day. Sessions were presented by the university staff and outside consultants on Mastery Learning, Continuous Progress, Metric Education and the Exceptional Child. These topics were prefaced with an introduction to curriculum design through the Tyler Rationale.

During the 1976-77 school year, the inservice program consists of three concurrently operating, somewhat integrated, components. We have followed upon these three in response to the variability of time available, participants' substantive interests, and the motivational structures of various participants. The three components are: morning inservice sessions and follow-up consultation in classes, weekly cadre meetings, and professional development courses.

Sessions which are very close to a traditional inservice model are held twice weekly during one-half hour planning periods on topics initially requested by the teachers, but structured by the university faculty for the most part. These sessions have concentrated on metric education and elements of diagnostic/prescriptive teaching applied to several subject areas. During their four months of operation thus far, the emphasis in the sessions has shifted from didactic presentations by university faculty members to presentations by teachers on their trial implementations of techniques applicable for different types

of students. The more recent emphasis has also been on in-class consultation, wherein the university faculty members, upon request of teachers, participate in the teachers' classroom activities as needed. These activities have included the actual teaching of lessons to children for the teacher to observe, individual student diagnosis of particular learning problems and suggested techniques to overcome these, assistance with small group activities, and observation of the teacher and discussion with her afterwards and follow-up planning.

The second component of the inservice curriculum takes place in the weekly two and one-half hour after school cadre meetings. The cadre is a group of 20 individuals representing each of the school/community's role groups mentioned above, which has the task of formulating its own goals and working toward the solution of school problems. University faculty members participate in the cadre with their various competencies upon request by the group, although one university faculty member is the coordinator of the cadre. Another university staff person functions as a nonparticipant observer and attends all meetings. Specific tasks to which this group has addressed itself include: the development of a skill bank correlated to reading objectives, the clarification of and development of teacher-parent communication practices, grading policies within the school, the establishment of a newsletter to the school community, consideration of anthropological principles applied to urban educational settings, and the development of a catalogue of diagnostic/prescriptive teaching activities field-tested in the school.

Professional development graduate education courses are offered at the field site by university personnel connected with the project as the third component of the inservice curriculum. The majority of the members of these

courses are the teachers and school/community representatives from the site school, although teachers and paraprofessionals from nearby schools are also taking the courses. The general topics of these courses are made to apply to specific local problems. The courses have consisted of: Administration -- School/Community Relationships, Language Arts in the Urban School, and Human Development and the Exceptional Child.

While the foregoing curriculum description presents only the barest sketch of the activities taking place, it should be evident that the program is multi-faceted. The evaluation of the program for both formative and summative purposes is therefore a complex task, for effects of various aspects of the program are not easily separated and decisions to make changes in one area affect other areas very quickly.

C. The Problem of Evaluation and the Transactional Evaluation Design

The program described above is a complex one not unlike other educational endeavors. The problem is, how does one evaluate its many facets while maintaining program integrity and the evaluators' objectivity? The research and evaluation design had to meet the following criteria. The model had to provide data on each of the program components while maintaining:

1. direction, synthesis, coordination of the many parts being evaluated so that the overall direction of the program remains in focus;
2. methodologies appropriate for each individual component;
3. optimal operation of the program in special settings where evaluation is usually problematic (distrust, suspicion of university types, overwhelming, thought to interfere with school routine, racially interpreted, etc.)
4. procedures which are conceptually and theoretically sound as judged by

contemporary standards of evaluation and within the limits of present imperfections;

5. generation of data which contributes to the development of testable theories about the program's focus of inservice education models for urban schools.

The design which the program developers judged best met the above criteria was the transactional evaluation model as described by Rippey and others. Briefly,

> "Transactional evaluation is a developing aspect of educational accountability. It looks at the effects of changed programs -- in schools and other institutions -- on the incumbents of the roles in the system undergoing change, i.e., on the changers themselves. It does not focus exclusively on the outcomes of the changed programs as they affect a target population. For example: if a school system were planning to introduce a performance contracting system, transactional evaluation would look, not at improving reading scores of students, but at changed role relationships and latent apprehensions among those responsible for the educational services - teachers, administrators and perhaps parents. A comparison with the traditional summative and formative evaluations shows that the target of evaluation is different; the subject of the evaluation is the system, not the client of the services rendered by the system."[1]

Walberg expands the definition by indicating that,

> "Transactional evaluation . . . is the acquisition and feedback of information and values into an ongoing social system to assess goals, means, and their match within and outside the system. It is distinct from traditional evaluation in education in two ways: its focus is on the social and organizational relations rather than on education materials and techniques; and its emphasis is on diagnosis and improvement of a system rather than on establishing the superiority of one system over another in the manner of an agricultural field experiment or a horse race."[2]

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[1]Robert Rippey (ed.) Studies in Transactional Evaluation (Berkley, California:McCutcheon Publishing Co., 1973) p.

[2]H. Walberg, "Transactional Evaluation in Professional Education," in Rippey's Studies in Transactional Evaluation, p. 127.

In view of the findings generated from other urban teacher training projects based on the socio-cultural model, it was found that traditional educational research and evaluation techniques were not appropriate for a predominantly black teacher and community clientele.[1] The transactional evaluation model adopted by the program focused on program processes, transactions among program participants, critical events and program history as well as the unique characteristics of the school setting. Naturalistic observation, key informant interviews, post meeting reaction sheets and cataloging of informal interactions among participants and staff were among the first data collection techniques to be used in an attempt to obtain a status description of the system and the initial changes attendant to the introduction of the Teacher Corps curriculum. Later, survey, psychological, and performance measures of program participants and their clients, the students, were introduced. A comprehensive needs assessment of the school/community was undertaken once staff had the trust of the participants in the program. The transactional model allows renegotiation of the data collection methods with participants on the basis of feedback and this procedure occured twice in the first year of operation. Student data collection procedures were renegotiated in the fall and cadre data collection procedures were revised at the end of the first semester of operation. Further, on the basis of feedback and analysis of data, the program was able to self correct and change mechanisms for participation. The transactional approach recognizes many audiences for an evaluation from people

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[1] H. Schwartz, "An Experiment in Training Teachers for Inner-City Schools: A Social Systems Approach in the Ford Training and Placement Program," North Central Association Quarterly (Vol. XLVI:4, Spring, 1972, pp. 376-380). See also, for example: Barbara Biber, Elizabeth Gilkeson, and Charlotte Winsor, Basic Approaches to Mental Health: Teacher Education at Bank Street. New York: Bank Street College of Education, 1966; Dan W. Anersen and John M. Antes, "Micro-Teaching for Preparing Teachers of Culturally Diverse Children," The Elementary School Journal, LXXII, No. 3 (December 1971) pp. 142-49; Robert F. Peck and Oliver H. Brown, "The R and D Center for Teacher Education," Journal of Research and Development in Education, VII, No. 4 (Summer 1968).

being evaluated to readers of evaluation reports, each with disparate concerns and values. It attempts to describe and assess the program and to predict behavior in explicit reference to the various publics involved in the program. The implementation of the model requires staff roles at the interface of agencies, parity among the various participants, individual or agency, and negotiation as the process of arriving at a total evaluation design. The approach is particularly useful in programs with only originally defined intents; where the participants specify the goals and tasks they wish to accomplish within the framework of improved teacher and student performance. The approach is compatible with programs in the developmental stages and in multiple purpose programs because it is flexible and responsive to shifts in conditions, needs and values.

However, the transactional model, in seeking comprehensiveness and understanding, sacrifices some of the objectivity and precision of measurements of the experimental research model. Further, in maintaining its relativistic flavor, the model loses some of its authority. In an attempt to compensate for these features of the model, the research team for the project built in features of the classical psychometric pre and post test model and the evaluation by objectives framework of Tyler and the comparative components model for inservice teacher education proposed by Joyce and Howey. The wholistic approach to the project is provided by the historical record; the managerial analysis method provides information concerning staff activities, and many of the synthesis techniques are borrowed from anthropology in order to organize and report results.

With respect to tradition, the first research methodology presented is the classical psychometric analysis.

## II. Quantitative Method

Spanning all of the evaluation methods utilized are a core of generally stated principles of operation which structure and organize an evaluation towards the satisfaction of stated goals. Within a specific method, certain of the principles are stressed, receiving most emphasis as a result of the unique characteristics of the more specific model. One of the primary purposes of the Teacher Corps project which the quantitative method fulfills is that of providing feedback to program participants and managers that is useful in attaining a status picture of goal accomplishment, and one that provides information which will allow adjustments to be made in the program enabling a more complete satisfaction of the stated goals. The quantitative method, as the label implies, involves numerical information, and it is primarily this aspect which separates this method from the others. Within these purposes and coincident with the numerical emphasis, certain principles of operation are emphasized for the quantitative method, and the explication of these will clarify the intents, activities, and expectations of this kind of evaluation.

### A. Guiding Principles

The quantitative method will make use of formative and summative evaluation. In accordance with the transactional model, data collected will be presented to participants and program managers either in summarized or in interpreted form, and data and results will be retained for possible future use. Wherever possible, data will be collected at logical times related to the program structure, but with a sensitivity to not overwhelming participants or burdening program personnel with questionnaires, forms, or other evaluative tasks which may deter the normal functioning and progress of the program activities. Consideration must always be given to "giving back" something in return for what is taken in the way of data, time, or services, and feedback to

participants will most often take the form of evaluative summaries of data which are gathered. Records will be kept to stand as "hard" evidence of successes and failures, of strengths and weaknesses, and will comprise and facilitate documentation of project activities for dissemination to the educational and public sectors. Such data will further developments of the program model in both theoretical and practical terms in the time after the program has formally ended.

A procedure utilized in most types of evaluation, but for which the quantitative method is particularly useful, is that of needs assessment. Within a transactional framework, participants' desires and needs form a major structuring component for curricular programs offered. As such they require evidence of need which can not only be clearly portrayed, but which is in a form that can be easily summarized, statistically treated, and probed for deeper interpretation. Any determination of the satisfaction of goals which is underpinned and formulated within the framework of participant needs is facilitated by evidence in the form of quantitative data. The specific curricular goals for the project rely upon the meshing of the conceptions and resources held by the university faculty with the perceived needs of the participants. The latter cannot be articulated at the beginning of the project, but evolves instead during its operation as a result of the interaction of university faculty with the teachers and the community. Specific goals may change as a result of university intervention in the school. Continuous needs assessment, therefore, contributes to the evaluation process by defining and re-defining the goals to be evaluated; goals which are not (and possibly cannot) be specified before the program begins as is the conventional mode of program evaluation. Prior assessment and continual re-assessment of need are thus a most important aspect of program evaluation to which the quantitative method of evaluation is well applied.

B. Objectives of the Quantitative Method

In many respects the previous summary of principles presents a general statement of the more specific objectives of this method. Because this document is focused upon curriculum, and more specifically, in-service within the project, the specific objectives will be stated for clarification of this emphasis and the limitation of scope imposed by this focus.

1) To assess the degree to which the objectives of in-service programs were accomplished.

2) To identify the strengths and weaknesses of in-service programs.

3) To assess project progress with respect to in-service both during and at the conclusion of each in-service segment and to facilitate self correction of activities and methods where needed.

4) To locate areas needing further development and training with respect to in-service.

5) To provide feedback to persons for whom the in-service is given and to those peripherally affected by the in-service.

6) To facilitate replication of those successful programs of in-service and dissemination of program information to a local and national audience.

To this date, the above objectives have guided decisions concerning the type of data to be gathered, when it was to be gathered, how it would be fed back to participants and the larger audiences, and the extent and type of documentation which would be produced. The following section spells out the particular applications of the quantitative method for the various segments of in-service programs, many of which are now in progress.

C. Applications of the Quantitative Method

For the purposes of this report, the applications of the quantitative method will be confined to those aspects of the program related to the development and implementation of curricular activities. The earlier description of the in-service program points out the various facets of the program for which

a curriculum was developed, and in all cases, an assessment of participant needs was a major guiding component. Because participant needs influence to a large extent decisions concerning curriculum, the needs assessment activities which were conducted will be discussed initially followed by a description of the formative, summative, and pre-post applications.

D. Needs Assessment

Participating in the project are university staff, elementary school personnel and the community of parents served by the three involved schools. In this first year of the project, most activities were to be focused at Hinton Elementary School with gradual inclusion of the other two schools, Banneker Elementary School and the Parker Child Parent Center. It was the intention of the needs assessment to determine what participants desired and needed, and to deliver upon those needs utilizing the resources with available staff or outside consultants. Teacher Corps National guidelines required that the first six months of the project be spent in a comprehensive needs assessment, the information to be utilized as early as possible for the purposes of structuring and planning in-service for teachers. Simultaneously with the needs assessment activities, a program was to be conducted, and for this reason, a smaller scale needs assessment was conducted. In May and June, 1976 the projected participants from Hinton Elementary School were asked what they needed in the way of training, equipment, curriculum materials and services. Based upon a summary of these responses and other more informal and less quantitative assessments, the Summer Training Workshop was planned. Additional information gathered in the first weeks of the project sufficed as planning information throughout the summer, and by continual small scale re-assessment of participant needs this information was added to and altered. Such activity was to sustain the project

while the larger needs assessment occupied the first months of the project operation.

The larger needs assessment utilized a packaged program published by Phi Delta Kappan[1]. The package consists of 18 predetermined educational goals to be rank ordered by participants in order of each goal's relative importance. After the ranking procedure, participants respond to the goals with their opinions as to how well the school is achieving these goals. By these two processes, those goals which are most important and also not being accomplished are identified. Participants then discuss these identified goals and record the problems and causes associated with the lack of goal accomplishment. The information obtained from the process not only specifies the highest priority needs, but includes suggestions for cause, and in this way structures future attempts to better satisfy these goals.

For the present project, the teachers of Hinton School and a volunteer group of approximately 25 parents completed this process (separately) over the period from October, 1976 through February, 1977. During this same time, a descriptive profile of the Hinton student body was prepared consisting of attitude and achievement data in reading and mathematics. Once this total information package was collected and summarized, it was fed back to Hinton personnel and parents. As a culminating activity, one that is inteded to produce the most useful information for planning future in-service, teachers will respond to the Generic Skills Inventory[2], an instrument designed to enable teachers to specify those areas of teaching for which they feel well prepared and not well prepared. The needs

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[1]Needs Assessment materials available from Phi Delta Kappa, Eight and Union, Box 789, Bloomington, Indiana 47401.

[2]James, Barry N., Teacher Education Projects Florida State University, College of Education, Tallahasee, Florida 32306.

assessment information fed back to teachers will help them to locate areas of greatest need for development. Hopefully, teachers will see the need of further training in these areas.

Much of the quantitative data from the needs assessment will prove useful not only to in-service planning of curriculum, but will be helpful in looking back on the in-service activities which have already taken place. Comparing more present needs expressed in the larger assessment with those needs outlined in the preliminary needs assessment before project activities began may give some indication of the degree to which certain aspects have been addressed or are still of major concern. In particular, the topics of Metrics and Diagnostic Prescriptive Teaching, which have been the subject of a considerable amount of study for the Hinton faculty, may be viewed differently now by participants than before the project began. Other uses of the quantitative data from the needs assessment will be taken up later in discussion of psychometrics in the pre-post treatment design.

E. Formative Evaluation

Up until the present time, a variety of formative evaluation techniques have been utilized with in-service activities. For the summer program, post meeting reaction sheets following each session were the primary formative instruments utilized, and results were fed back weekly to participants.

A common core of questions were asked after each session concerning the utility of the session in imparting new information, in providing occupation related information, in providing opportunity for questions and discussion and the like. Two or three additional questions were asked each week (or for particular sessions) relating to the content of the topic covered and its relevance to perceived needs. Following each session, those staff members who presented information and who were planning the next sessions reviewed the reactions of

participants, and quite often altered original plans for future sessions based upon these results. Examples of the use of these documents can be found in "A Description and Evaluation of the Hinton School Summer Training Program: July, 1976."[1]

During the fall of 1976, a morning in-service program was begun, offered three times weekly for the entire Hinton faculty, and participants' reactions to the sessions were sampled less frequently than for the summer. Because the needs assessment activities occupied many of the September morning sessions, the in-service program was not operational until October. In the first week in November, teachers were asked to fill out a rather detailed list of questions concerning the manner and appropriateness of the format of in-service sessions and of the usefulness of the various topics which were covered. Within two weeks of filling out these forms, a summary of these data was passed back to participants and discussed. The data plus reactions to it were utilized for planning the remaining sessions in the first semester and for projecting the type of format and subjects to include for the 1977 semester.

Morning in-service sessions for the 1977 semester did not formally begin until late January, and an evaluation of these sessions has as yet not been taken. Based upon the results of evaluations of the fall programs, the format was changed from a large group format to a small group, from mandatory to voluntary sessions, and was to focus more upon in-class types of activities for teachers. Participants' reactions to these changes and to the value of the in-service now being offered will be obtained at the end of February, and the instrument utilized will be of similar nature to that used in the fall.

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[1] Cichon, D. J., Olson, G. E., Schwartz, H. S., "A Description and Evaluation of the Hinton School Summer Training Program: July 1976," Roosevelt University Teacher Corps Project - Cycle 11, Roosevelt University, College of Education, Research and Development Center.

One additional and important piece of formative information gathered for all in-service programs was attendance records. Although the sessions were technically mandatory for teachers, it soon became evident that teachers expressed their views concerning the utility of the sessions by their attendance or absence. Attendance records represented a useful indicator of faculty interest and provided valuable input with respect to identifying when a change in either topic or format seemed needed.

As outlined earlier in the report, members of the Hinton school/community (faculty, administrators, and parents) were invited to participate in the Hinton Cadre, to meet for three hours on Wednesday afternoons for the express purpose of analyzing the various school roles, improving communication between the persons at Hinton, and identifying and working to solve some of the major problems confronting Hinton School. Because the format was collaborative in nature and discussion-oriented by design, formative evaluation activities took the form of attendance data only. Informal discussion with participants by the Teacher Corps staff both during and outside of these meetings sufficed to indicate the interest level, source of discontentment if present, and success of the program generally. These took the place of any formal process as evidenced in other in-service segments.

In addition to the Wednesday Cadre meetings, formal classes were held in Administration and Supervision and in Language Arts for those faculty and community members who desired them. Again, the only formative evaluation employed, other than the formal requirements of assignments given by the instructors, were in the form of attendance reports. These courses were university credited courses offered in the field for those participants from the three schools who wanted university or lane placement credit for this additional academic work. These courses were not directly related to problem solving or role clarification

as was the Wednesday session, and were somewhat adjunct to the total in-service program.

These then represent the formative evaluation techniques employed up to the present time which involve quantitative data, and a brief summary of their results will be presented in a subsequent portion of this report. In general, the methods have proved quite useful and will be retained as methods for self-correction and continuous participant feedback for future in-service efforts.

F. Summative Evaluation

For each of the segments of in-service, there was some form of summative evaluation. On the final day of the summer workshops, an evaluation questionnaire covering the entire summer program was administered to all participants present. Topics covered in the in-service were rated in five categories: new knowledge, interest, usefulness for professional work, quality of presentation, and desire for follow-up. The results have been utilized to determine to what degree objectives for the workshop were satisfied and in making future plans for the upcoming 1977 summer workshops to involve both new and old participants. These data also helped verify the extent to which the preliminary needs assessment data were operational, and in this way provided valuable input for planning in-service programs taking place during the school year.

Summative information for the Wednesday Cadre segment (concluding its first semester of activities in mid-January, 1977) constituted attendance data, grades obtained, products of the participants, and evaluation of faculty instruction. All these data in some way indicated the success or failure in achieving Cadre objectives and were reviewed extensively by staff involved in planning the subsequent Cadre meetings for the second semester. The results of portions of this summative data will be reported in a subsequent section of this report.

As stated earlier, evaluation of the morning in-service sessions consti-

tuted for the most part periodic assessments by participants, and summative evaluation up to this point has involved only the content of the sessions. In the case of the fall morning in-service, cognitive tests on Metrics and Diagnostic Prescriptive Teaching were administered. These were given to determine the success of the sessions in imparting a given body of knowledge and were, for purposes of planning further in-service, largely with respect to decisions whether or not more instruction was needed or if a new topic of instruction was advisable.

Summative information for the formal classes offered in the field took the form of final examinations and papers required of the participants. These requirements, when imposed, were the responsibility of the staff members conducting the courses, and were for the primary purpose of evaluating learning of participants.

For the most part, these summative data served the purpose of enabling a determination to be made of the overall success of the in-service, the extent to which stated and unstated objectives were accomplished, and of providing a record of end products for whatever future function they might fulfill. In keeping with the purposes of the quantitative method, these data in numerical form represent evidence of past efforts and what these efforts yielded.

G. Psychometrics: Evaluation Involving Pre-Post Design

The satisfaction of the major goals of the project and answers to the ultimate question: What impact will have been made by the advent of this Teacher Corps project on the participants? will depend upon some measure of change in the participants themselves. The type of information which can report change over time is that which is longitudinal and which measures in some manner the situation prior to any major project influence as well as during and after the project's existance. The simplest form of this data gathering procedure is the pre-post evaluation design, and for the above stated reasons, certain of these measures

up until this time have been taken for the pre-test phase only. The following will report the status of pre-post evaluation efforts and will spell out future intentions in this regard.

In this first year of the project, pre-post evaluation has been restricted to the Hinton community, broadly defined as Hinton teachers, administrators, role specialists, community members, and students. With respect to students, achievement test scores taken in May, 1976 in mathematics and reading and student attitude measures constitute the pre-test information which has been gathered. Achievement scores are from the IOWA Test of Basic Skills, and attitude measures are from the Self Observation Scale, both of which are used by the Chicago Board of Education for citywide testing. These tests will be administered again in May or September for Hinton students, and results will be analyzed in terms of identifying what changes in attitudes and achievement have occured among students which may be in some way associated with project activities.

In the summer workshop sessions, parts of the early sessions were taken up with the administering of attitude instruments to teachers (the California F Scale, the Gough-Stanford Scale of Flexibility, the Dogmatism Scale, and the Measure of Social Distance based upon a semantic differential format.)[1] These instruments will be administered again in June, 1977 after one year's operation of the project at Hinton. At the beginning of the second week of the summer workshop sessions, a cognitive test was administered to teachers covering topics which were identified as needing study by the preliminary needs assessment conducted in June of 1976 and concerning topics which were projected for the curriculum of in-service for the coming year. This test again will be administered in June, 1977 along with the attitudes instruments.

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[1]Shaw, M. and Wright, J., Scales for the Measurement of Attitudes (New York: McGraw Hill, 1967).

Probably the largest set of data from the community which reflects the attitudes and desires of parents is found in the needs assessment data described earlier, both in the form of results from a small group of parents representing all three schools to the larger sample of data collected via a mailed out questionnaire to all parents. In that most of these data were collected before any major activities with parents were begun, parents' views are reflective of their opinions and beliefs towards the school and education in general prior to the project's existence. Though plans are not finalized at this time, efforts will be made to again sample parents' views concerning educational needs of children this coming summer.

It is noted in summary that some form of pre and post data analysis is intended for each of the participating groups: Hinton personnel, teacher interns, and community members. Additionally, attitude data was collected for staff members and will be analyzed for changes that may have taken place. Once the post testing is completed after one year of operation, the results will be analyzed both to identify what changes took place within and across groups, and to view these changes within the framework of the major goals and intentions for participants as stated in the original proposal. These data will be organized into a summative report of one year's efforts and will be utilized extensively for planning the anticipated second year of operation. True to the transactional model, such analysis and change in program format and offerings has been taking place all along, and it is possible that summative assessment will merely mirror or suggest changes which are already in the making. If this occurs, it will only confirm the validity of the formative assessments. It is anticipated, however, that more will be revealed in the summative assessments and pre and post comparisons than could be obtained from the formative assessments alone. Data concerning attitudes are not strictly included in the formative assessments,

and the formative assessments by their nature are incremental in their description. They may fail to point out changes which appear minor or non-existent over the short range of time, but add up to something more major when viewed over a greater time period. For these reasons, it is strongly believed that all of the above types of quantitative evaluation are needed. They are methods which will yield "hard" data, data that is retrievable long after it has been gathered and is representative of the time in which it was taken.

H. Summary of Results of Quantitative Evaluation

Certain of the in-service segments have been completed, such as the Summer Workshop In-service Program and the first semester Cadre session, and formative and summative results are available. Other in-service programs are ongoing for which summative data are not available. Additionally, the pre-post design for certain aspects of the in-service curriculum are as yet incomplete and preliminary information is the only data available at this time. The discussion of results for the purposes of this report will be brief and will provide examples only of the ways in which quantitative data was and is being utilized to evaluate the various facets of in-service in the project. More lengthy treatment concerning the total in-service will appear in a monograph already under preparation reporting the first year's progress to be distributed at the end of this summer.

I. Summer Workshop

The formative data collected daily and summarized for participants weekly consisted primarily of ratings from 1 to 5 ("not useful" to "extremely useful") of the manner of presentations and the topics discussed. It was mainly used for deciding what content needed bolstering or added review and deciding which format of presentation (small group discussion, lecture, etc.) was the most stimulating

to the group. The summative instrument given on the last day of the summer workshop was similar in format and content of the formative post-meeting reaction sheets, and the summative data collected in almost every case supported the formative findings. For this reason, the summative highlights will be presented and it can be assumed that these reflect formative ratings as well.

On the summative questionnaire, respondents rated the topics in five categories: new knowledge, interest, usefulness for professional work, quality of presentation, and desire for follow-up. Ratings were from '1' to '5', lowest to highest in the respective categories, and according to the criteria stated, ratings were uniformly high, all averaging above '4' on the 5 point scale. The weekly themes of cross-role training and individual curricular topics were consistently viewed by participants as the most interesting and useful for professional work. The curriculum topics of Metrics education and the Exceptional Child were identified as areas in which participants desired most follow-up. Viewing the evaluation ratings by specific daily topics, there was a very close relationship between the ratings of new knowledge and interests, and to a lesser extent, the quality of presentation. These are examples, then, of the more macro findings emerging from the quantitative evaluation of the summer program.

J. Morning In-Service

The quantitative data collected for the morning in-service sessions were of three types: pre-post cognitive evaluation of content areas covered, evaluations of participants' assessments of the appropriateness of the format and content, and attendance data. Cognitive pre-tests given in October, 1976 on Metrics and Diagnostic Prescriptive Teaching revealed that factual knowledge in these two areas were not high among the participants. By mid-December, when the post-tests were given, the extent of factual knowledge in Metrics had increased significantly.

Of the 36 persons taking the 15 item metrics pre-test, approximately 40% of those taking the test missed 10 or more items, and over half of those taking it missed 8 or more. On the post-test, six of the 26 persons missed 5 or more of the questions, and the rest obtained a score of 70% correct or better. Four participants received a perfect score on the post-test.

For the topic of Diagnostic Prescriptive Teaching, it was concluded that the quantitative representations of the scores did not accurately portray the significant learning that occured. Most answers requested were in narrative form, answers were often based upon past experience and opinion, and often there was not just one correct answer for the questions. This is an example where quantitative method was not the most appropriate as it was applied, and thus, results are incomplete without some consideration of the subjective judgements of the person who presented the material. Quantitatively, the gains were from almost no knowledge (very few questions being attempted) to much knowledge (almost all questions attempted). The number of questions answered indicate an increase in the amount of learning, but do not specify the nature of the learning, a more significant aspect in this instance.

Based upon these increases, it is concluded that some success was obtained with this approach to in-service, though cognitive gains were not as high as intended. A breakdown by item of the test given and the identification of aspects answered incorrectly has already given some indication of where deficiencies may be found in the transmittal of this information. Additional reasons can be found in other types of data such as attendance and participant reaction to the format and content.

Attendance data did reveal important information in this instance showing that attendance became increasingly sporadic at the morning in-service sessions with the percentage dropping from nearly 90% attendance for the month of October

to an average of 66% for the month of December. It appears obvious that absence was a major factor hindering learning.

The results of the November 9th administration of the formative evaluation instrument for morning in-service provided additional reasons. For Metrics only 52% of the participants felt they learned anything new, and only 48% felt it was useful for their professional role. However, 74% felt they needed more in-service in metrics, and none of the participants stated that they were confident in their ability to teach the Metric system to the students. It appears that the sessions were not giving teachers what they needed in order to teach metrics, and this would suggest one reason why interest and perhaps attendance might have been low. With relation to Diagnostic Prescriptive Teaching, a similar picture emerged. Though stimulating participants more than Metrics, only 36% of participants found the sessions useful in their professional role, 87% said they needed more training, and only 32% of the participants felt more able to employ Diagnostic Prescriptive techniques in their teaching.

As a direct result of this combination of data, morning in-service sessions were changed considerably. They were made voluntary, were changed to a small group format, and were focused on providing activities and individual staff demonstrations and assistance in the classroom. Though only the quantitative data has been discussed above, this discussion provides an example of how such information was utilized to diagnose problems connected with non-achievement of cognitive learning goals and how corrections were made in the in-service activities based upon evaluation of participants' reactions.

K. Wednesday Cadre In-Service

Of quite different nature from the morning in-service were the Wednesday in-service sessions of the Hinton Cadre. They met afternoons for three hours, were

voluntary and offered for course credit, and the group was smaller, 23 at maximum. Because of the discussion-orientation of the sessions, it was decided that quantitative formative evaluation was not crucial, and participants' reactions throughout the semester were gathered informally by staff conducting the in-service and a non participant observer at each session doing naturalistic observations. Attendance data and a semester evaluation of faculty instruction by participants were the primary vehicles for summative evaluation. Attendance was good for the entire semester averaging 90% overall for the sessions. There was some attrition early in the semester with the number of participants dropping from 23 to stabilize at 19. Problems that arose during the semester were dealt with by the staff collectively. No quantitative record of these problems was taken, though ethnographic records were made.

Summative results of participants' evaluation of faculty instruction revealed their opinions concerning areas of strength and weakness in the presentations. Participants rated twenty six different characteristics of the cadre in-service program on a 1 to 5 scale, number 5 indicating the highest rating possible. Highly rated by participants were mastery of subject matter by those presenting material, opportunity for discussion, and the informativeness of the discussions that took place. These received an average rating of 4.4. Lower rated were productiveness of assignments, freedom to express opinions, and organization of the in-service activities, and these received an average rating of 3.4. The average rating for all 26 characteristics was 3.87. As indicators of areas to improve upon, these quantitative data proved useful for planning the second Cadre in-service which is presently in session. Some examples of changes that were made for the second session are that activities are planned more collaboratively with participants, and the sessions have a greater concrete school task orientation than in the first semester.

The intention of the presentation of this brief overview of some of the quantitative results of evaluation of in-service programs has been to demonstrate ways in which such information is being used to measure progress and accomplishment of completed programs, to plan and modify ongoing programs, and to make judgements concerning future in-service that will be offered. Only a portion of the data has been presented, and only some of the ways these data can be utilized to obtain information concerning the in-service have been discussed. As stated earlier, most of the analysis of such data will be taking place in the near future for preparation of a summative end of the year report to include formative, summative, and pre-post treatment results. To be included in these analyses are correlational techniques applied to particular questions concerning how best to locate strengths of what has been tried in the past, to identify unintended learnings and unprojected associations, and to assess the extent to which stated objectives have been accomplished and what the accomplishment or non-accomplishment can possibly be attributed to.

One additional purpose has been, therefore, to describe processes yet to take place and portray how the gathering of data which can be quantified can answer some important questions for the operation of a project such as this. It should be pointed out that yet to be interpreted are the data from the needs assessment conducted over the past 8 months. It is anticipated that these data will better enable the structuring of the content of future in-service programs yet to come.

L. Limitations of the Quantitative Method

Everything that occurs in a project is not easily quantified, and though it may be possible to represent numerically a great deal of information concerning project events, some reductionism is always the result. From the reduction-

ism comes a loss of flavor, of perspective, and of words to express intelligently what "really" occured. All data are not reduced to numbers, therefore, only those things for which it is convenient, expedient, and useful. As a consequence, quantification is limiting not only by the reductionism, but also by the exculsion of potentially revealing data.

An additional limitation for the application of the quantitative method for this project is in the use of self-report data from participants. In that participants are taking part in the decisions that are made, their opinions and viewpoints must be expressed and documented. The most common method of recording this information is to ask them their opinion utilizing some form of instrument; in the case of this project, reaction sheets, both periodic and summative. With such techniques, there is the assumption that participants understand the intent of the questions and interpret them in the proper manner, that they answer them thoughtfully and straightforwardly, and that their answers are interpretable - that is - that they are interpreted to mean what they were intended to mean. This leaves a rather large margin for error in interpretation, and thus limits the dependability of the data unless they are validated in some way. Though this applies to all self-report data, it is particularly a danger if represented numerically. By translating data into numbers, one interpretation has already been made, and those who read and interpret the numbers can easily lose sight of the prior assumptions concerning validity of the data. The data are often interpreted more factually than is warranted.

One final limitation which may be more characteristic of this particular project than others is the fact that this project is operating within a transactional framework, that goals are reformulated and added, and along with such flexibility, the aspects which are measured change also. With the

use of quantitative methods, in particular pre-post methods and correlational analyses, it is desireable to designate what will be quantified and when it will be quantified before the initial activities to be evaluated begin. Within the transactional framework, it is impossible to foresee all aspects which will need to be evaluated, and thus the scope of evaluation that is possible by quantitative methods is limited. Included with this limitation also are the problems of any study that is longitudinal, that of sample size itself and the possibility of change in the original sample. For any statistical analysis of data which have been quantified, these inevitable occurrences must be dealt with in some manner, again limiting the amount of reliability and scope of interpretation that is possible.

## III. The Ethnographic Method Applied to Educational Research and Evaluation

### A. Assumptions and Purpose

The basic approach to ethnographic research and evaluation comes from the discipline of anthropology. Anthropologists concern themselves with habitual behaviors, individual and group, inherited and learned. They study human beings in institutional settings including the strains institutional settings place on individuals. They study culture, which is everything that man is and does.[1] In this program, the ethnographic methodology will be used to document the development of culture of the school(s) in which the program operates, of the cadre subculture and of the evolution of the program's ethos. To accomplish these tasks, anthropologists use special ways of looking at the world and its parts and techniques for investigating that part of human behavior to be studied. The specific approach being used here is that of applied anthropology,[2] the selection and use of ethnographic data for dealing with educational problems. Applied anthropological studies can serve to: (1) raise an individual's cultural awareness, that is, what is it in one's beliefs, background and social situation which makes him act the way he does?; (2) help pinpoint the probable roots of cultural or subcultural conflict in a given situation; (3) provide information about the culture of a school, or a community, or a classroom. Such studies point up the similarities and differences among group and individual behavior and allow one to look at a situation from a wholistic point of view.[3]

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[1]Melville J. Herskovits, Man and His Works (New York: Alfred H. Knopf, 1949).

[2]Leslie White, The Science of Culture (New York: Farrar, Strauss and Cudahy, Inc. 1949).

[3]George D. Spindler, Education and Culture, Anthropological Approaches (Chicago: Holt, Rinehart and Winston, 1963).

The purpose of using ethnographic approaches to program evaluation is to document the longitudinal development of program themes, to record the responses of various groups to the inservice and preservice curriculum, to trace the evolution of the cadre subcultural systems, and to describe the ethos of the program. The program will provide a rich background for the data resulting from the other methodologies. Further, the ethnography which results from the two year investigation complements the cultural level of the socio-cultural model underlying the program.

The conceptual approach borrowed from anthropology is that of the cultural universals framework.[1] The anthropologist looks at schools as subcultures, at classrooms, at teacher groupings, or cadre groups as subsystems of the school culture. Schools, classrooms and cadres like other systems of human behavior build cultures which are complex, probabalistic, and self regulating. Also, like cultures, most schools, classrooms and cadres can be observed to have purposes, structures, functions, content, patterns and some form of coherence. One can view schools, classrooms and cadres in terms of some commonly accepted anthropological constructs or universals.[2] These universal aspects of culture, classrooms, schools and cadres are created as the informed group members transmit knowledge to the neophytes, and as they interact with the values, skills, information, and attitudes to be learned from the curriculum. The whole process is called education, a special form of the general procedure known as socialization.

In documenting the program, eight universal patterns have been identified

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[1] M. Herskovits, Man and His Works, pp. 227-440.

[2] H. Schwartz and M. Jason, A Guidebook to Action Research for the Occupational Educator (Springfield, Ill: Illinois Office of Education, DAVTE, 1976) pp. 135-180.

for documentation. Each classroom, school, community, cadre and culture has some way of handling these universal aspects of behavior, but each culture or subculture displays a unique way of doing so. For example, all cultures and subcultures have a value system which indicates what ought to be the preferred ways of doing things of believing what is good and what is bad. All have a cosmology or world view which specifies what constitutes reality in the school, the community, the cadre or the classroom. Each cultural unit has some form of social organization which governs individual and group relationships even to the point of determining forms of verbal address. Each system has a technology, a body of knowledge and skills used to perform the tasks necessary for the system to function and survive. There is an economic system which regulates the allocation of goods and services in the school, the cadre and the classroom. Further, there is a form of governance or a political system regulating individual and institutional behavior which specifies how decisions are made and who participates in what decisions. Typically, there is a special language uniquely suited to the educational process or the subject matter of the classroom. Finally, there is a socialization process or educational process which regularizes the transmission of knowledge to the neophytes, the unlearned ones in the group. It should be emphasized that the cultural universals model is only one of many conceptual frameworks which anthropologists use to look at the world.

Several principles of research in applied anthropology must be stated initially. If one is going to do research with living cultures and real people, the following guidelines should be observed:

1. The investigator must be aware of his own biases and understand that he is viewing others through his own cultural window no matter how objective he tries to be.

2. The investigator must be able to communicate with the people whose cultural system he is studying, either on a first-hand basis or through a key informant who has the respect and confidence of the members of the group as well as an in-depth knowledge of the cultural pattern under investigation.

3. The investigator must be willing to spend time (typically at least a year) observing at first hand the group under study either as a participant or a nonparticipant observer.

4. The investigator must have access to written records, if any, artifacts and other objects produced by the group.

Some consideration should be given to the kind of questions this form of investigation can answer and the kind of problems best addressed by this technique of evaluation. Generally, anthropological research is qualitative rather than quantitative.[1] This does not mean that anthropologists never use numbers or statistical techniques. It does mean that most of the ethnographic literature tends to be descriptive and interpretative, for the anthropologist presents as complete a picture as possible of the culture of a group. Therefore, if a problem can be resolved by an experimental or statistical design, using the anthropological techniques would add additional insights and understandings concerning the behavior of persons in the system, but would also be time consuming. The advantages of one method of investigation over the other were considered before embarking on this method of evaluation. It was felt that there were some aspects of the program which did not yield to documentation by the other techniques already described. For example, how best could cadre participation in program activities be documented? How else could a complete picture be made of the impact of the group on the socialization of the interns? Did the cadres have any influence on the direction of the inservice curriculum?

In order to describe, explain and analyze one or more of the universal pat-

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[1]Elizabeth Colson, "The Intensive Study of Small Sample Communities" in R. Spencer's (ed.) Method and Perspective in Anthropology (Minneapolis: University of Minnesota Press, 1954).

terns of culture mentioned earlier, the anthropological investigator uses four basic techniques: observation, interview, collection and analysis of written documents or other objects, and the collection and analysis of demographic data. These techniques, as used in the program evaluation, are summarized below.

B. The Methodology

The four major data collection techniques used in this investigation are demographic analysis, observation, interview, and functional or content analysis of written documents.[1] Other techniques may include surveys, life histories, the examination of cultural objects or artifacts, the collection of topographical and sociometric data and the audiovisual recording of ceremonies and rituals.

1. Demographic Data Collection

All investigations should begin with information concerning the nature of the population under investigation - base line demographic information, vital statistics. The program staff collected demographic information concerning the three schools to be involved in the program and the salient facts regarding the community in the development of the project proposal. Information concerning the potential participants' age, sex, ability level, attitudes, socio-economic status, race, the location and description of the schools, floorplans, time schedules, students' educational levels, teachers' years of job experience and other information relevant to the group was collected before the program began and at its inception. Now spot checks are done periodically to see if the nature of the population has changed in the schools, the community, the cadres. Demographic information is collected on those variables which may influence partici-

[1] A more detailed description of these techniques applied to schools can be found in Estelle Fuchs, Teachers Talk (Garden City: New York: Doubleday & Co. Inc., 1969).

pants' response to the curriculum and may guide the development the culture of the program.

2. Observations

Henry[1] has classified the types of observational techniques in the following manner.

Naturalistic: The investigator is known to the group as an observer and engages in direct observation of persons and groups recording almost everything and letting patterns emerge from the data.

Structured: The observer identifies the behaviors he expects to be present in a situation, organizes them into sets and then records their presence over a series of observations. For example, the preservice intern should be expected to keep track of time spent on the job.

Participant: The investigator is a member of the group being studied or has a role relationship to and frequent interactions with the persons being studied.

Nonparticipant: The observer is not a member of the group and his role and/or presence may not be known to the group.

All four types are being used to prepare the ethnography of the program. First, the interns, the preservice teachers, through the vehicle of daily logs are engaged in participant naturalistic observations of the school culture at the Hinton School. Second, each cadre has a trained staff member functioning in the role of nonparticipant observer making naturalistic observations in ten minute timed intervals. Third, other staff and faculty members are engaged in participant observations in classrooms in a structured way. Finally, cadre members have been asked to record their responses to various aspects of the

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[1]Jules Henry, collected manuscripts, unpublished, est. date 1968.

program and to share them with staff members. Each of these sets of observation notes will be analyzed for patterns, for commonalities and uniquenesses and for critical episodes in the development of the culture of the program.

In each instance, the observation record includes information concerning the location of the event, the time, the physical surroundings, the behavior of the people, groups and institutions involved in the situation and the role of the observer. Observations of the inservice and preservice events in the curriculum are made on a regular basis over a one year period to capture the full cycle of activities. Nonverbal actions, body language, seating patterns and the covert and informal network of relationships and norms are attended to by the staff members observing in the cadre meetings. The observations will be content analyzed for themes and categorized in terms of the cultural universals framework described earlier.

3. Interviews

Interviews may be formal or informal and both are being used in this case. The ethnographer relies heavily on the key informant interview to generate data. Key informants are members in good standing of their culture or subculture. Attempts are made to work with informants numerous and different enough to represent all major aspects of the group(s) under study. Therefore, all members of the Hinton School faculty and administration will be involved in formal extended interviews concerning their impressions of the culture of the school and cadre members will be interviewed formally once and informally, several times, regarding the subculture of the cadre. In addition, several role groups have been selected for frequent informal interactions and interviews, such as the preservice interns stationed at Hinton, role specialists, males in a predominantly female school and paraprofessionals who live in the

school/community. Formal interviews are being conducted with ten designated community leaders and informal interviews with a group of parents who have assumed a leadership position in the school/community. In the other cadres, the administrators, selected paraprofessionals, teachers, parents, and head teachers will be interviewed formally. Finally, informal interviews have been conducted and, in June, formal interviews will be conducted with central staff members to tap their contributions to, and impressions of the program, school and cadre subcultures. The program staff evolved its own values, technology, governance system and so on which was parallel to, but affected the development of the cadre and the curriculum. The interaction of these subcultures will be described.

Frequently, the investigator comes to depend on those few members of the group who have the time and desire to talk with him. This may induce a bias in the data. To avoid this bias, the two staff interviewers assigned to the program participants will exchange key informants for half the formal interview sessions and compare responses for discrepancies. Appropriate adjustments will be made if necessary. The formal interviews with key informants will culminate the first year of ethnographic data collection. The time span should permit the respondents to feel comfortable with the investigator. The greatest problem for the investigator is to establish trust while maintaining objectivity toward the responses given by the informant. Approximately 70 two hour-long formal interviews will be conducted in March, April, May and June of 1977.

The interview schedules are designed to correspond to the cultural universals framework presented earlier. Data will be content analyzed in terms of the eight categories which will be changed only when the data reveal crucial elements of the subculture not anticipated in the framework or not previously

encountered. Pilot tests with the open ended schedule were conducted by the author last year at the Hinton School and four other similar schools in the district. The data were rich, interesting and greatly augmented the demographic and survey information collected from each site. Whenever possible quantitative material from observations, surveys, documents and other sources will be used to support generalized statements made on the basis of data from the interviews. Sample interview questions in each category are shown in Appendix A.

4. Content Analysis

Content analysis of written documents or interview data is another method of systematic observation and measurement of variables.[1] Content analysis will be used to analyze in an objective fashion the themes, patterns, content and intent of written communications such as logs, bulletins, cadre minutes and agenda, staff agenda and minutes and other program committee minutes, institutional reports, correspondence, interview data, etc. In this technique, questions are asked of the communications rather than of the informants or by directly observing behavior. Written material is a form of behavior which can be analyzed and inferences can be made about the nature of the group or individuals producing the communications. The basic skill required in content analysis is to set up workable categories and a logical classification system which relate to the research problem and the conceptual assumptions. The logical classification system has been established in the cultural universals framework; the workable categories given the nature of the culture and subcul-

[1] F. Kerlinger, Foundations of Behavioral Research, pp. 543-553. See also B. Berelson, Content Analysis in Communication Research (New York: Free Press, 1952) and C.E. Osgood et al. The Measurement of Meaning (Urbana, Ill.: The University of Illinois Press, 1957).

ture under examination include such content categories as distribution of curriculum materials (technology), staff time allocation (economics), groupings of pupils, parents, administrators (social organization), program content (values, technology), decision making strategies(governance), voluntary groupings, discipline (socialization), instructional strategies (technical language), opportunities for interaction among staff. The unit of analysis in this case is the theme (a phrase or sentence related to a content category) and results will be reported in frequencies and percentages.

Content analysis is a simple but laborious and time consuming analytical technique and should be used when data cannot be obtained in other ways or when written materials are a crucial component of the culture. Given that schools are literacy training institutions and that written documents are the principal cultural artifacts of a program culture, they must be examined in detail for insights into the cultures of each.

C. Preliminary Analysis

It is premature to attempt to present any complete description of the culture of the Hinton Elementary School, the cadre and the program at this time, with less than a year of observations and incomplete interview data and only partial analysis of the written documents. Therefore, what is presented here reflects the preliminary informed judgments of the ethnographers based on comparisons of observations and interim reports of program and cadre functioning. The findings should be regarded tentative and in need of further documentation. The temptation to generate research hypotheses has not been resisted for the observation and interview data provide fertile ground for such speculations.

1. The Culture of Hinton School: A brief description of the nature of the student, parent and professional population was presented earlier. To summarize the demographic information collected, Hinton Elementary School is a K-6 facility with a student population of approximately 835, serving a low income black community on the south side of Chicago. There are two administrators, a principal and an assistant, 6 role specialists and 40 teachers of whom 3 are male. There are 4 white teachers on the faculty and the rest are black. Eight paraprofessionals work at the school which provides breakfast and lunch to the children. The student achievement reveals the typical pattern of regression from the third grade on and, on the average, children are about 12 months below national norms by the time they reach fourth grade.

In capsule form, the needs assessment data and interviews reveal that the world view of the parents and the teachers in the Hinton school/community culture is very congruent with respect to the children. For both, reality consists of adequately preparing children to complete their educations, at least through high school. The process should make the children self sufficient, economically and personally. By contrast, the daily reality of the various adult role sets in the school/community is quite divergent. For the parents, reality is survival and protection of personal rights and property from encroachment by the various community forces e.g., crime, and the legal institutions of society which often are seen as hostile. For the teachers, survival is maintaining order, covering a designated amount of material, meeting extra class responsibilities, snatching some moments with other adults and "making it through the day." For the administrators, reality is meeting the daily crisis, allocation of goods and human resources to meet health, safety, custodial and instructional requirements and satisfying the requests of some-

times remote superiors. Resolution of each issue for each group results in feelings of security, status and/or sociability.

The value system of the Hinton school/community was tapped in the specification of goals cited in the quantitative section of the paper. Parents and teachers feel the school ought to teach children to be literate, self respecting and respectful adults who are capable of being productive persons in the society. However, they see each other as sometimes impeding the child's progress toward these desired ends. Both groups endorse the core American values of self reliance and egalitarianism.

The social organization of the Hinton School is typical of the structure of most elementary schools, that is a relatively flat bureaucratic pyramid with the principal at the apex and the children and parents at the base. Other social groupings are related to grade level taught, quasi-administrative status attributed to lack of regular classroom responsibilities and informal affiliations on the basis of race, sex, age and years of experience at the school. Variables such as the influence of socio-economic status, residential patterns, marital status and educational levels require further supportive data before comments can be made about their importance in the social organization of the faculty. The shortened school day at the school limits the number of adult interactions possible and this may be the most crucial element in the absence or formation of kin-like groupings.

The technology of the school has both a formal and an informal component. Written documents and initial interview responses suggest that a central office mandated continuous progress/mastery learning teaching strategy is the major instructional mode at the school. However, the analysis of a small number of informal and key informant interviews indicates a gap between what is said and

what is done in the classroom for the larger part of the faculty. Observation reveals the self-contained classroom is the chief setting for instruction. Most classes have about three achievement levels and teachers functioning the "leader of the group" instruction role. The completion of the Learning Environment studies next year and the accompanying classroom observations should provide insights into the actual process of instruction. There seems to be an unwillingness to try new techniques without almost daily guidance and class support.

The economic system is characterized by centralization of the distribution of instructional materials in the area of the administrative offices and allocated by non-classroom staff. The allocation of adult human resources is the prerogative of the principal or his designee, with the exception of the maintenance staff whose activities are specified by the building engineer. The use of student time is almost exclusively the function of the classroom teacher with some concessions made to role specialists such as reading teachers, librarians, gym and music teachers. Given the city-wide fiscal and promotional incentive system, the few economic rewards available at the local school level seemingly do not generate a competitive spirit. Additional data are required before specification of the informal set of norms which govern the allocation of these rewards. Speculation is that power in the system is related to the receipt of these rewards dispensed by the administrator and the engineer.

The governance structure at Hinton School seems to be as participatory as possible given the constraints of a large urban school system. The administrator seeks input from faculty, has continuing contacts with the opinion makers and does value negotiation as a conflict reduction mechanism. The lack of formal grievances brought by the faculty is one concrete indication of this

faculty perception of accessability. There is one group of faculty members who express the desire for more directive leadership and more unilateral decision-making on the part of the principal.

The socialization process has been examined with special emphasis on the acculturation of the preservice interns in the program into the Hinton school culture. A rite de passage has been outlined and the interns are keeping logs to document the process. Crucial variables in the system's acceptance or rejection seem to be related to race, willingness to perform menial tasks for members of the school/community culture and ability to control children. Certain personality variables on the part of faculty and interns are under intensive examination for it seems that a selection model for compatability and productivity might be posited and related to site specific conditions. For example, it seems that open-minded teachers with traditional values work best with preservice interns with high self esteem and a content speciality, in a team teaching self-contained classroom setting.

The language of the system has its own unique features, but the major patterns are reflective of the educational profession, the middle and lower middle class background of the teachers, the ethnic and socioeconomic elements in the community and the peculiar variations generated by the presence of the university staff and program jargon.

2. The Subculture of the Cadre: Much of what has been said of the Hinton school/community is reflected in the Hinton cadre with the exception of variables of social organization, norms and values, and governance. The group decided that they wished to operate on a consensus model with a convenor selected from their membership. The first convenor was a volunteer, a female classroom teacher. The second convenor approaches the administrative model in that he is

not a regular classroom teacher and is seen to have some quasi-administrative functions. The rapidity with which males in the cadre assumed leadership positions is related to the role of the male in the largely female elementary school culture and requires additional investigation. The cadre is still grappling with the problems attendant to the development and enforcement of norms and values. This process is further complicated by the presence of "outsiders" in the persons of the interns, though they are less outsiders than members of the project and university staff. The tendency is to relinquish leadership positions to the university personnel and to avoid any situations which will lead to conflict with administration.

While it is too soon to say definitely, there seems to be the development of new social groupings in the cadre which are not present in the larger system. Coalitions of parents and teachers and interns are present, work groups involving faculty members of different status levels have formed and university staff and classroom teachers are functioning in dyads to address specific instructional problems. The duration and impact of the groups on the larger system remains to be seen.

D. The Limitations of Ethnographic Analysis as an Evaluation Methodology

The ethnographic model is descriptive and provides a wide range of insights into the processes and patterns of the culture of the school and the cadre. The completed ethnography will generate a wide variety of research hypotheses requiring detailed examination. For example, the special status of the role of the male teacher in the predominantly female elementary school culture may change with the evolving role of the woman in the larger society. Indications are that schools lag far behind the general culture in sex role socialization.

The model is not predictive. Because each school culture is unique, until modal profiles of a variety of cultural types can be devised, it will not be predictive. Currently, school ethnographies are rare because they are so time consuming and require trained anthropologists as field workers and analysts. Hopefully, the research being conducted here will contribute to the body of knowledge required to develop a predictive ethnographic model. It should be remembered that successful program replication requires detailed descriptions and analysis of all elements of the endeavor.

The quantitative and ethnographic analyses provide both formative and summative evaluation information. The next two techniques, historical and managerial, tend to be explicitly summative. Nevertheless, both the historian and manager implicitly make formative evaluations and are asked to share these judgements on an informal basis with program staff and participants. These two perspectives as implemented in the Roosevelt University Teacher Corps Program and as reported here are complementary for the discussion of the historical documentation presents a model and the managerial analysis presents data to be processed by the model.

## IV. The Historical Method

The place of the history in evaluation lies between raw chronology and summative statistical techniques. Raw chronological, the recording of events, can be obtained by perusal of agendae and minutes which result from program committees' meetings. A history must place this chronology into perspective. Similarly, it is through the eyes of the historian that the long term implications of statistical data can be appreciated. Means, standard deviations, and F-ratios need the historical background in order to become "humanized".

Given that a program history is a viable evaluative technique, it is incumbent upon the historian to identify the crucial elements which make up a "history". Examination of these elements, or "phases" in assembling a history can then lead to an understanding of the evaluative nature of historical documentation.

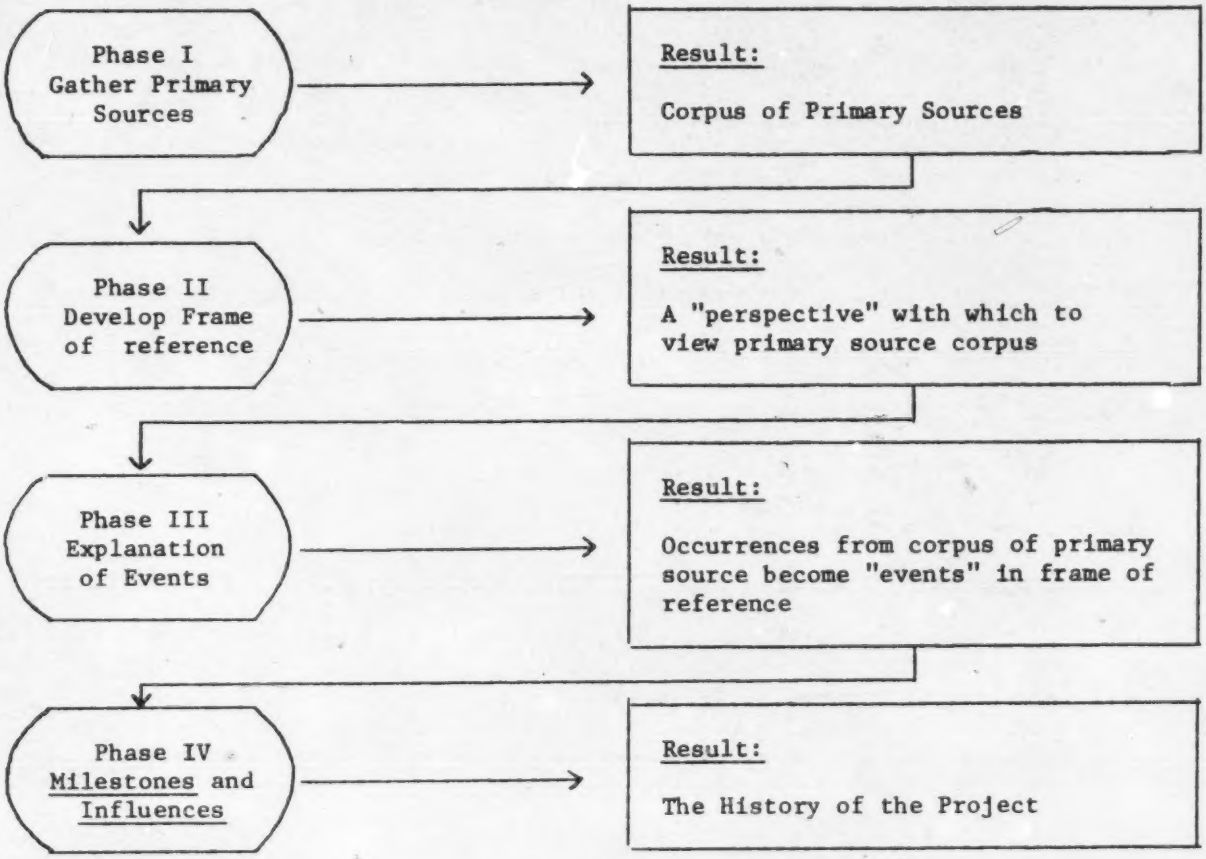
The initial phase in the construction of a history consists in the gathering of primary source information. It is axiomatic that the more exhaustive the search for primary sources, the more valid will be the history which is developed.

The second phase in historical evaluation involves developing a frame of reference with which to view the primary source data. This "frame of reference" may be more loosely termed a "perspective"; it is the duty of the historian to, in some objective way, order the chaos of an ongoing functional entity. The frame of reference is crucial in making the leap from chaos to order.

The third phase in historical analysis is expository in nature: the project being evaluated must be interpreted through the parameters set up

in the frame of re-erence. What were formerly mere occurrences become "events" which relate to other "events", and which, as a totality, give us a picture of the course which a given portion of the project has taken.

The final phase in constructing a history involves generating "milestones" and "influences". Certain events, when the occurences of the project are placed in the frame of reference, become paramount in importance, and the historian refers to these events as "milestones". Once the "milestones" have been selected, the "influences" which these milestones had on the project may be postulated. Pictorially, we may view the phases in the history as follows:



History is a critical science which must estimate what, of all the developments which happen to mankind, is to be counted as progress. This estimation creates the phenomenon of historical teleology which must be recognized as a source of error in any history.[1]

To counteract as much as possible any error which may result from historical teleology, the collection of primary source data must be as complete as possible. Additionally, these data must themselves be the source for generating the frame of reference, lest individual preferences distort the occurrences being considered. However, the historian will always be faced with possible error because occurrences, which become events, which become milestones which have influence all have their genesis in the eyes and mind of the historian, and his colleagues.

The history of the Roosevelt University Teacher Corps Project will involve all four phases which have been discussed earlier. Because the nature of the project is that of a transactional system, the history will be shared with project participants as it is being constructed. In this way, it is hoped, an objective historical analysis of the project will be produced.

There are three types of primary sources which are being collected for the history. The first type consists of all memoranda, agendae, and minutes of meetings, which are being kept and filed chronologically to facilitate retrieval. Discussions with project staff and participants is the second type of primary source data being accumulated. The third type of data consists of previously prepared documents concerning the research site. These include histories of the schools involved in the project, Chicago Public School Surveys concerning faculty composition, and students' previous testing data.

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[1]Wilhelm Windelband. A History of Philosophy. Vol. I & II. (1901: Reprinted by arrangement with Macmillan Co., New York, translated by James H. Tufts.)

The development of a frame of reference for these data is still in process. Tentatively, it appears that all data will be categorized as relating to one of these four parameters:

1. Organization and Management
2. Participant Profiles
3. The Community
4. The Evaluation of In-Service Curriculum

Under "Organization and Management" will be included items on personnel and decision-making. The "Participant Profiles" will include all information regarding cadre formation, inservice participants and course enrollers. An active community necessitates separate consideration of the reciprocal impacts between the Teacher Corps Project and the Community. Finally, information on the curriculum per se, and its growth and change, will be included in a separate category.

Yet to come in the course of the history is the construction of the "story" of the project, as viewed through these parameters. Still further in the future is the establishment of "milestones" and "influences". Close sharing between participants, staff and perhaps students in the schools themselves will be required before recognition of milestones and influences can be realized.

Limitations of the Historical Method

The history, or "teleological assessment" of the project, is fundamentally a "post facto" analysis. Its chief value lies in how it may be used in future projects similar to the present one. Particularly with respect to milestones which seemed to have had a deleterious influence on the course of the project, future researchers would do well to notice the occurrence of cor-

responding events in their own projects. Perhaps then by careful planning these future projects would circumvent any difficulties found in the present project. Although in doing this other researchers may be perpetuating a post hoc ergo propter hoc fallacy, consideration of other summative evaluations of the present project could counteract this to a degree.

## V. Management of a Teacher Corps Project by a Transactional Style of Organizational Analysis and Evaluation

### A. Rationale for Managerial Analysis as Evaluation

Conventional wisdom calls attention to the notion that a new and complicated venture requires "good" leadership, management that is informed, sensitive and goal directed. The processes of the leader and his or her management style have been examined by researchers in psychology, sociology, education and industry.[1] The investigations reveal that the "successful" manager and/or managerial team are those which can establish goals and procedures to accomplish them, and identify problems related to the pursuit of goals, of staff functioning, improper allocation of resources, communication networks. Then, formally or informally, information is collected from a variety of sources, analyzed by the manager and his staff, a decision is made, implemented and evaluated. The whole process bears a great resemblance to the traditional program evaluative process, with one major difference. The manager rarely makes the process explicit, but frequently keeps the whole procedure in his head. The notion here is that by making the managerial process explicit the project is viewed from another framework, and a new dimension is added to the transactional evaluation model. Further, detailed records of the managerial mode of experimental projects may provide additional insights into why some projects survive, prosper and influence education and why others fail.

The possibility exists that managerial analysis and management information systems are not useful evaluation tools, that their techniques are too casual and that the data generated is best dealt with in the historical and/or ethnographic

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[1]See for example Harold J. Leavitt and Louis R. Pondy, Readings in Managerial Psychology (Chicago: University of Chicago Press, 1964).

models. This possibility is open for consideration by the program staff and the scholarly community.

B. The Conceptual Base for Program Management

The management of the Roosevelt University Teacher Corps Project is based primarily on the Getzels-Guba model[1] of social interaction.

Getzels and Guba defined three leadership-followship styles as follows: nomothetic, which emphasizes adherence to role expectations and the requirements of the institution, such as an assembly line; the ideographic, which emphasized the need-dispositions of individuals; an example is the organization of a basic research division in industry; and transactional, which emphasized the interaction of the two.[2] Since the Roosevelt Teacher Corps Project is basically concerned with the imporvement of teaching-learning in an inner-city composite of three schools, the transactional style is most appropriate for making those decisions which can effectively implement this goal.

Thus, in developing the proposal for the Teacher Corps Project, a transactional model of governance for the project was delineated which emphasized three basic principles of parity, interface of roles, and negotiation.[3]

Parity was designed into the organization through the mechanism of four committees: Executive, Coordinating, Curriculum, and Planning. Each of these committees is a separate entity in having its own sphere of influence which determines the implementation of project objectives. Yet all are intertwined and work toward a harmonious whole.

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[1]Getzels, J. and Guba, E.G. "Social Behavior and the Administrative Process," The School Review, Winter, 1957.

[2]Getzels, J., Lipham, J. and Campbell, R. Educational Administration as a Social Process. New York: Harper and Row Publishers, 1968.

[3]McCampbell, James, "A Transactional Style of Organizational Management," University of Chicago: Ford Training and Placement Program News Briefs, 1973.

The chart shows membership on the various committees by roles.

Number by Role of Membership on Governance
Committees of Roosevelt University Teacher Corps Project

| Role | Exec. | Coord. | Curric. | Plan. | Comm. Total | |
|---|---|---|---|---|---|---|
| University Administrators | 1 | - | - | - | 1 | |
| University Faculty | 2 | - | 1 | - | 3 | |
| Teacher Corps Staff* | 2 | 11 | 3 | 3 | 19 | |
| LEA Administrators | | | | | | |
| Central Office | 1 | - | - | - | 1 | LEA 18 |
| District Office | 2 | - | - | - | 2 | |
| Local School | 3 | 1 | 1 | 2 | 7 | |
| LEA Teachers | 1 | 1 | 3 | 3 | 8 | |
| Community | 4 | 1 | 1 | 1 | 7 | |
| Interns | 1 | 1 | 1 | 1 | 4 | |
| Total | 17 | 15 | 10 | 10 | 52 | |

*All central staff members have administrative and/or teaching experience at the elementary and/or secondary level. Further, they all have votes only in the Coordinating Committee.

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The Executive Committee is co-chaired by the Dean of the College of Education and the District Superintendent of District 21, a sub-district in the organization of the Chicago Public School system. Having these two men closely involved in helping to set policy for the project sets a tone of interagency

respect for the project which it otherwise might not have. The project is regarded as an important part of the activities of the College of Education of Roosevelt University. In the field, the activity of the District Superintendent indicates to the central administration of the Chicago Public Schools his respect for the goals of the project as well as communicating to the site-coordinator or principal and teachers of the school in which the project operates, his unqualified support as well.

The Executive Committee meets monthly, alternating meetings at Roosevelt University and in the District 21 office. Its agenda are prepared by the project director. Formal minutes are kept of its deliberations. Its basic functions are to be concerned with the financial management of the project and to make major policy decisions for the project. Its voting membership, in addition to the two co-chairmen and the project director, consists of the assistant director of the project, the site-coordinator, principals of the two other schools involved in the project, the Local Education Agency (LEA) coordinator, two members of the College of Education faculty, four parents who represent the three schools, a member of the District 21 office, an intern, /this is one of four young people who are working for Master of Arts degrees in Teaching in a two year program of formal course work and school and community services/, and a teacher representative.

The membership of the Executive Committee was specifically designed to provide a parity mechanism for all aspects of the project--University and Local Educational Agency, staff members who are faculty members of the College of Education whose primary responsibilities are concerned with the project and College of Education faculty members who are interested in the project but not project staff members, members of the community, administrators, teachers, and

interns. They also represent all levels of an administrative hierarchy.

The Coordinating Committee is primarily a staff communication and planning committee. It is chaired by the project director and consists of all staff members affiliated with the project and an intern representative. Again the membership of this committee is an illustration of the parity principle resulting from the process of negotiation. Three members have been added to its membership not only to implement the democratic principle of parity, but also to indicate to all concerned with, and interested in, the project that it operates in an open manner. These include the site-coordinator or principal of the school, the co-community cadre coordinator and a teacher representative of the faculty of the Hinton school. Increased membership in this committee also illustrates another facet of the smooth interface of the local school and the University.

At the onset of the project, this committee met weekly, but now finds that bi-weekly meetings are sufficient for project purposes. This committee also has a formal agenda and keeps detailed minutes of its proceedings. It is in meetings of this committee that no detail concerned with project operation and management is too small to be discussed.

In preparation for the work of this committee, the director carefully analyzed the project proposal before the start of the school year and developed a management information system (MIS) for consideration of the staff. This system has three major characteristics: (1) it defined the eight major tasks of the project; (2) tentatively listed the persons responsible for each major task as well as other staff members who were to become involved; and, (3) set time-lines for the accomplishment of the tasks. Major tasks included: (1) operations of the project; (2) conducting a needs assessment;

(3) retraining experienced teachers; (4) organizing and operating a teacher learning center; (5) training pre-service interns; (6) providing a community-based parent education program; (7) evaluating the project; and, (8) documenting, disseminating, and demonstrating major facets of the project.

Moreover, the management information system provided for a breakdown of the major tasks into subtasks using the same framework as for the major tasks, namely, a description of the subtask, the person responsible and others involved in the subtask, and a time-line.

The management information system was also restructured into major tasks and subtasks to be performed by each staff member including the director, assistant director, program development specialist, team leader, community coordinator, needs assessment coordinator, and the exceptional child coordinator who also serves as project historian. For each staff member major and subtasks were grouped for that person either as being responsible for them or being involved with them. Each subtask was given a classification number which could be coordinated either under the heading of tasks or subtasks to be performed or to the specific individual responsible or involved. Again each subtask was described briefly and time-lines defined.

When this system was fashioned, comments, suggestions, and revisions were solicited. Again, the principle of negotiation concerning staff responsibilities for tasks operated. Staff members were given the opportunity to meet with the director or to submit suggestions for revision in writing. It is interesting to note that only a few minor suggestions for revisions were made. Thus, the management information system as devised by the director at the beginning of the project became the major frame of reference for staff planning and operations.

Moreover the management information system (a managerial analysis system) is a good evaluation tool in that it provides for both formative and ultimately summative pictures of the status of the project. The system identifies the changes that have to be made in the management of the project in order to facilitate the basic goal of the project, changes in the curriculum of the school. This method of evaluating both process and products, is also consistent with the transactional evaluation scheme and the social system design of the project. Put more simply, it is another way of "getting a handle" on a complex project which may be replicated. The data generated by the MIS have pointed to redirections of staff energies at certain points in time. Thus subsequent changes were made as the project operated. For the most part, the changes were negotiated with the appropriate individuals and agencies. Occasionally the negotiations became confrontations usually because the principles of parity and liaison roles were violated. Some examples are given below.

The Curriculum Committee also began operation at the onset of the project under the co-chairmanship of the assistant director and the site coordinator or principal. Again formal agenda for each meeting were prepared and minutes taken of proceedings. This committee also meets monthly and alternates meeting at Roosevelt University or in the field at the Hinton School. An intern is a member of this committee in addition to project staff members, a member of the College of Education faculty known for her expertise in curriculum matters, a member of the community cadre, and three teachers of the Hinton School. Again, the principle of parity has operated in the designation of roles for members of the committee in that they involve staff most concerned with the direction of the curriculum of the project, teachers who

are concerned with the teaching/learning in their classrooms, a curriculum expert, the administrator of the school which is the locale of the teacher learning center, and members of the community.

This committee, as its name implies, is mainly concerned with broad policy matters pertaining to the selection of instruction materials and equipment for the project, the allocation of project staff for instructional tasks, and the recommendation of curriculum directions for consideration, study and delivery.

The project proposal called for the formation of a cadre not only at the Hinton School in which the project's teaching learning center operates, but also at two other neighboring schools, the Parker Child Parent Center, a pre-school facility, and the Banneker Elementary School, a kindergarten-sixth grade facility similar in grade range to the Hinton School.

Because much staff energy and time was utilized in beginning the project operations, formation of cadres at the other two schools was delayed until January, 1977. Furthermore, it was not possible to form a cadre in each of the other two schools, primarily, because staff resources were not available for two additional cadres. Thus, a Parker-Banneker combined cadre was formed.

The fourth committee in the governance structure of the project, the Planning Committee, consists of representative members of each cadre in addition to staff personnel. It meets monthly and is co-chaired by the two cadre liaison personnel (staff resource persons) who work with each cadre. Its major function is to sift the ideas of the members of the committee in a cross-cadre relationship to the mutual benefit of both cadres and the respective schools which are represented and to plan cross-cadre activities.

Again, an intern serves on this committee. Thus, each of the four interns assigned to the project serves on a major governance committee of the project,

a further illustration of parity. Interns compare notes on their perceptions of the committees at their own weekly meetings conducted by the team leader whose primary responsibility as an experienced teacher is to smooth the transition of raw, prospective teachers into finished teachers capable of managing and instructing in inner-city classrooms.

Interface is defined as the quality of interaction among the various role groups and agencies involved in the project, in this case managerial, and other external forces which either impinge upon it or with which it has to deal. Good relationships result in a tight interface, less than good relationships result in a rough interface. The director is involved in three major interface roles within the University, with the LEA, and with the Teacher Corps bureaucracy. Several examples are given below which illustrate the kinds of problems which face those who function in the liaison roles at the interface of participating institutions.

Working with the Controller of the University and members of his staff has proven to be a revelation to the project director and has involved more time and effort than allocated in the MIS. The first important contact with this office came when it was time to secure tuition vouchers for the interns at the beginning of the fall, 1976 semester. It was not until the director personally intervened with members of the Controller's staff that the problems faced by the interns at each step of thr registration process were solved.

The auditor assigned by the Controller to keep the University's accounts of financial transactions required by the project now consults with the project director ten days before the end of each quarterly report period and allows herself to be guided by the suggestions of the project director, who keeps his own set of financial books in allotting credits and debits to various line items in the budget. Personal negotiation with the Controller by

the project director also straightened out errors in salary payments to staff members and to a policy which permits the director to personally be responsible for the distribution of monthly salary checks to field personnel.

Although the project director is a former high official of the central administration of the Chicago Public Schools, relationships with that office have proven to require more time and effort than anticipated in the managerial information system. By Teacher Corps regulations, the salary and in-city travel expenses of the team leader, salary payments to the interns, and the salary of a secretary in the field office are under the jurisdiction of the local education agency (LEA). This has been done for a number of reasons including the most important--that of wanting to elicit a reasonable level of support for the project by the school system in which a project operates.

There have been numerous difficulties with lack of salary payments to the team leader, tardy payments to the interns, and the like. Not all of these evidences of contention have yet been satisfactorily solved despite much personal and written attempts at negotiation by the project director. It may be that negotiation of unresolved fiscal items with the national funding agency may be the only way to conclude the concerns regarding allocation of funds by the LEA.

Moreover, the involved routine of lane placement credits for participants in such courses under project auspices continues to be a negotiated item at each step of the process.

There has been, however, one exception to the gloomy picture noted above. At the beginning of the project, the central office indicated that it had been requested by governmental officials to offer for sale to the highest bidder the closed circuit television equipment now installed in the Hinton School. This equipment had been in use in a closed circuit television hookup as part of an

District 21 office, a move which had been made necessary by the fact that the school was not permitted to hold meetings beyond 4:00 pm. (Later it developed that the principal was able to secure a permit to keep the Hinton building open to 5:00 pm.) They also requested that those members of the cadre who desired University credit for participation not be held for written work of any kind.

Core staff members readily agreed to the first two requests--that of making in-service sessions involuntary and that of holding cadre meetings at the Hinton School. They also suggested that members of the cadre should take more responsibility for determining their own agenda and only one cadre liaison person, the team leader, would function to work with the Hinton cadre instead of the four staff members who participated in cadre meetings in the fall semester in order to lessen the feeling of staff direction of the cadre voiced by some cadre members.

However, the project staff "stuck to its guns" in pointing out that no University course in the College of Education worthy of the name could function without the request for some kind of written papers. Furthermore, it was pointed out that Chicago Public Schools policy for salary lane placement courses required evidence of a formal nature. This position was accepted by the faculty negotiating team.

Core staff also suggested that an addition to the membership of the Coordinating Committee be made in that one classroom teacher was to be elected to represent the faculty at meetings of that committee. The chairman of the faculty negotiating committee was promptly nominated to serve in this position.

It is interesting to note that careful negotiation with consideration of all viewpoints without rancor actually resulted in improvement in project operations. Participation in morning in-service sessions is now voluntary by

teachers; the number participating now is no less and in some cases greater than it was at the compulsory sessions held in December. Moreover, there is a greater interest on the part of the teachers who do participate and the tone of the sessions has improved greatly; these teachers, too, are beginning to incorporate into their classroom activities some of the suggestions made by project staff.

In summary, the transactional mode of managerial analysis has served the Roosevelt University Teacher Corps project well by providing for parity in its governance structure, permitting the director to develop strong interface relationships within the University, outside of the University, and with other Teacher Corps projects and programs; and by practicing the principle of negotiation whenever and wherever it was expedient to advance the goals of the project.

## VI. Summary and Perspectives

The paper has attempted to describe the multiple research methodologies being used to evaluate an inservice teacher education curriculum within the framework of a transactional evaluation model. Preliminary results of less than one year of data collection and analysis were presented in summary fashion and some judgments concerning the limitations of each methodology were discussed. The issue to be considered now is the evaluation productivity of the four research methodologies, collectively and individually. Does each technique provide information for wise decision making in the program, raise new research questions, generate hypotheses and contribute to knowledge in the area of inservice training? Does the methodology permit the accurate description of the program and its curriculum and does it yield measurable predictions of the behaviors of individuals and institutions? Do the multiple methodologies complement each other or are they redundant? Is the supplementary information yielded by one technique worth the staff time and effort devoted to the data collection and analysis mandated by the constructs of the evaluation model? Is there an effective and efficient sequencing of the methodologies?

Preliminary judgments indicate the least productive model, not reported here, in terms of generalizability is the comparative case study methodology. However, the results of this approach are important to the public school participants in the program by virtue of the detailed information presented regarding one school and one cadre and one component of the complex program. The most initially useful technique is the quantitative one because of the immediate information available through surveys, needs assessments and post meeting reaction sheets. Program planners can change formats, content of inservice activities and allocation of resources early in the program's history to respond to

these data. Participants seem to respond less enthusiastically to quantitative feedback and ask for simple verbal statements, which can become simplistic unless care is taken. The ability of the quantitative analysis method to raise research questions and generate hypotheses rests on the assumptions underlying the collection of the data. The quantitative data collected to generate status descriptions tend not to lead to further examinations. When the assumptions underlying the investigation posit a series of relationships such as students' sense of self worth and their teachers' participation or nonparticipation in an inservice program, then a variety of speculations can be formulated for investigation. Responses to various aspects of the inservice curriculum can be gauged in a cost effective way through quantitative means thereby contributing to the literature in the field. However, if quantitative data were the only descriptions available of the curriculum, the view would be narrow and not highly predictive of behavior. But the baseline data provided by this technique seem to be the logical starting point for all other evaluative models.

The technique of managerial analysis begins with the program's start and continues informally for its duration. The attempt here is to make this implicit personal evaluation process explicit. It may be that the technique is less an evaluation scheme than a management approach. But information is collected, processed, shared with others and used to make decisions about the direction and performance of program elements. The power of the method to generate hypotheses and raise research issues may be limited to the development of selection models for staff, sites and resource management.

The historical methodology is crucial to program replication and goal assessment. The technique is by nature summative, but begins with the program's inception at the planning stage if possible. The generation of re-

search questions and hypotheses from this technique depends on the creativity of the program and the skill of the historian.

Earlier the issue of redundancy emanating from the utilization of multiple methodologies was raised. The experience to date reveals some redundance of effort and the need to rethink the use of two of the techniques in the evaluation design. However, the staff agrees that the benefits derived from the multiple techniques and frameworks far outweigh the problems encountered and the time expended. First, the use of more than one technique and way of looking at the curriculum allows the generation of questions which would not arise from the single approach and further provides data for possible answers to these questions. For example, the quantitative attitude data reveal Hinton students to be well above national norms on the variable of school affiliation, but below or at the national norm on the variables of peer affiliation and teacher affiliation. Why? Informal interviews with participants and observations of relationships among students and between students and teachers indicate that the school is perceived by students as a haven which provides warmth, food, physical security, and safety from attack. Formal interviews will probe the issue further. Second, the multiple techniques serve as a validation device. Third, more than one approach to a problem helps to give greater focus to the research questions and gives insights into how to sequence the further collection of data. Fourth, the simultaneous use of more than one view, such as quantative and ethnographic, provides information on the differential meaning of a set of data. Frequently, a mean score blunts what are really positions on either extreme. Observation and interview data can interpret the differential effects of what appear to be ordinary responses.

The most time consuming method is the ethnographic one, but it tends to

yield the most comprehensive and provocative data about the socio-cultural system and the impact of the inservice curriculum. The analyses produced by this technique help clarify and integrate the data produced by the other strategies. This model seems most compatible with the framework of the program. The question of staff time and effort must be considered in programs with with limited resources and it may be that other evaluation techniques will need to be eliminated to accommodate this one.

Finally, the financing of education today discourages experimentation with high risk training curricula. Increasingly, educators are being encouraged by public and private sources to replicate "successful" programs, to consult the research and apply the findings to practice. Given this attitude, the body of empirical research upon which the curriculum planner and researcher may draw before designing a curriculum should be expanded to include carefully documented studies of the processes and outcomes of given curricula. This paper details the assessment of a complex curriculum in the professional development of educators from the vantage point of four research models. Further, the methodologies are being used simultaneously and being compared in terms of the appropriateness of the techniques in summative and formative evaluation. Judgments have been and are being made about the utility of each method. Others who have the task of selecting models to evaluate the structure, function, content, patterns, and outcomes of curriculum might benefit from information about which model does what in assessing the curriculum.